of the glass to be again redissolved. The upper stratum is, after a time, gently shaken, when more crystals fall with the same effect. There is a point, however, if the solution is not too acid, or sufficient ammonia has been added, when some of these crystals remain undissolved, and by carefully setting aside the tube at this stage, and allowing it to remain undisturbed for some time, we may detect, by the microscope, both the prismatic and stellar crystals with their intermediate stages. This experiment we have repeated, and are able to substantiate his opinion in regard to the mode in which these formations occur. Most of the stellar crystals are of two varieties; the first being composed of four rays, and the second of six. In the first we usually find, during this process, that, by aggregation of crystalline material, two prisms are formed which intersect each other at right angles; or else two of the rays which are in the same line become elongated, and material is gradually deposited in the interstices to make up a single perfect prism, the two long arms corresponding to the length, and the two short to the breadth of the crystal. In the second variety, where the figure has six rays, four of these become elongated in a similar manner, and the same deposition occurs as in the other; or else these rays are all joined together at their extremities, and the figure then filled up constitutes one variety of the prismatic crystal which is very frequently observed. These crystals, then, are not dependent upon the difference in proportion of ammonia in the two, but merely to the rapidity with which they are formed; nor is the stellar variety, as has been heretofore stated, indicative of a severer lesion than the other. We ourselves have never seen these stellæ already existing in urine at the time of emission, nor have we ever observed them to occur spontaneously.

The relation of these two forms of phosphate to one another seems to us a very interesting point in urinary pathology, and we are of the opinion that many of the crystals found in this secretion, heretofore considered as differing from one another in their chemical composition, will be found a more accurate observation to be formed either by the aggregation or disintegration of primitive crystals.

Baltimore, *May* 10, 1850.

Art. III.—*Extracts from the Records of the Boston Society for Medical Improvement.* By Wm. W. Morland, Secretary. (With a wood-cut.)

Feb. 11.—*Melanosis of the Eye.*—Dr. Bethune reported the following case. The patient, a healthy farmer, sixty-five years of age, entered the Eye and Ear Infirmary under his care. Twenty years ago, he first observed a red spot at the outer angle of the left eye, wedge-shaped, and with the apex towards the pupil, as in pterygium. For fifteen years it was stationary; but five years ago it began to grow, and at the end of one year he was only able to discern

the light. Pain came on, when the disease began to increase, and was severe for the first two years; it was then less again till last autumn, since which time it has increased, being occasionally severe and darting, and at times dull and heavy.

On examination, the right eye is well. Lids of left eye separated by a black, smooth, but irregular mass, projecting from the anterior third of the ball, and compared to a pecan-nut with the base outward and the anterior half cut off. A few days after his admission the eye was removed, and at the end of a week the parts were healing well, and he was discharged. The eye seems to be healthy, except for the tumour, which does not involve the internal parts.

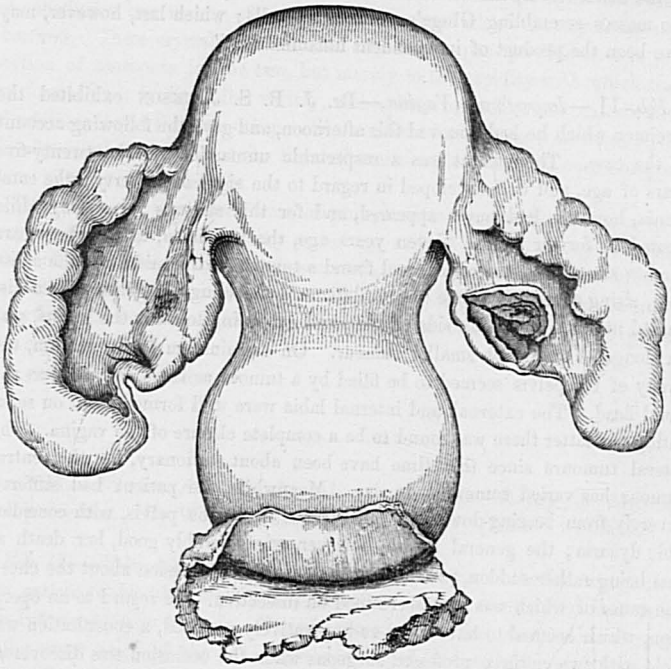
Under the microscope, Dr. H. J. Bigelow had observed the following appearances: "First, numerous cells, apparently epithelial; secondly, numerous cells, of irregular outline, enlarged by a power of five hundred diameters to the size of a five-cent piece, and containing sub-cells and nuclei; also some of a marked caudate figure. These, with others decreasing to simple nucleated cells, with one or two nuclei, the diameter of which cells were only three or four times that of blood corpuscles, were probably cancerous. And to account for the black colour, the whole field was filled with granules, often aggregated into masses resembling Gluge's granulation cells; which last, however, may have been the product of independent inflammation."

Feb. 11.—*Imperforate Vagina.*—Dr. J. B. S. Jackson exhibited the specimen which he had removed this afternoon, and gave the following account of the case. The patient was a respectable unmarried female, twenty-five years of age, and well developed in regard to the signs of puberty; the catamenia, however, had never appeared, and for this she was for a long while treated in former years. Seven years ago, the physician, under whose care she has since been, was called, and found a tumour in the middle of the abdomen, rising some way above the umbilicus, and feeling altogether like a distended uterus; upon each side of this, and extending towards the groins, was an elongated and much smaller tumour. On examination by the rectum, the cavity of the pelvis seemed to be filled by a tumour as large and solid as the fœtal head. The external and internal labia were well formed; but on separating the latter there was found to be a complete closure of the vagina. The lateral tumours since that time have been about stationary, but the central tumour has varied somewhat in size. Meanwhile, the patient had suffered severely from bearing-down and other pains about the pelvis, with considerable dysuria; the general health, however, was tolerably good, her death at last being rather sudden, and connected with some oppression about the chest, the cause of which was not ascertained on dissection. In regard to an operation, which seemed to have been so imperatively required, a consultation was held with two or three professed surgeons when the occlusion was discovered, but the opinions were against it.

On examination after death, the tumours were found as above described,

and also the external organs, except that at the seat of the occlusion there were three longitudinal folds, looking not unlike the internal labia on a small scale. The parts having been then removed, the uterus and vagina were found to be immensely distended, and on incision there were discharged three pints of a dark-red, inodorous fluid, resembling venous blood, and without a trace of coagulum. The two cavities are of about equal size, with a very marked contraction midway, corresponding with the os uteri, which, however, is in a good measure effaced. The parietes are about one-third of an inch in thickness, and quite dense; muscular structure of uterus developed, the inner surface being nearly smooth and without any trace of arbor vitæ; vagina less smooth internally, and thickness of parietes as great at the seat of occlusion as at any other part; the whole thickness of the fleshy mass that separates the vagina from the vulva being probably not more than half an inch.

The Fallopian tubes, which formed the lateral tumours felt during life, are distended in proportion to the uterus itself, except at their origin; the openings upon the inside of the uterus, however, being large enough to admit a small probe. The further extremities terminate bluntly, and the general out-



line of the tubes is irregular and knobbed. Upon cutting one of them open, it is seen to be filled with an uniform, inodorous deep brown substance, not

very unlike, though harder than, indurated feces. The parietes are thin but quite dense; and towards the uterus the cavity seems as if divided into numerous compartments by transverse partitions. There are also connected with the external surface of the tubes small cysts, filled with a material similar to that found in the tubes; and in the omentum, which adheres partially to the tubes, are found one or two other cysts, besides numerous very small deposits scattered over its surface, and looking not unlike the result of melanosis.

The ovaries are rather large and smooth, and one of them contains a cyst about the size of an almond.

On the following day, the uterus and vagina having been distended and the incision nicely closed, a very accurate and highly finished drawing was made of the parts for the Society, by Dr. J. C. Dalton; and from this the accompanying wood-cut has been taken.

Feb. 11.—*Aneurism opening into the Trachea.* Reported by Dr. Minot.—The patient was a female, thirty-six years of age, who had had dropsy for fifteen years, and diseased heart for the last four. Five weeks ago, there was noted a hoarse cough, dyspnœa, wheezing, and at nights orthopnœa, but without expectoration or palpitation. These symptoms increasing, she was suddenly seized with extreme dyspnœa, the inspiration being easy, but the expiration laboured and rattling; pulse 160, and very feeble; whole chest resonant on percussion, but with sonorous and sibilant râles in every part. From this attack she revived, after a copious expectoration of clear, viscid fluid; but soon had a second. The respiration continued somewhat rattling, and always had a peculiar tubular sound, which could be heard at a distance from the bed; she complained, also, constantly of a sense of oppression in the trachea. Nine days before her death there came on pleuro-pneumonia; but this seemed to be subsiding, when, after a slight fit of coughing, a torrent of blood poured from the mouth and nose, and she died instantly.

The specimen being shown by Dr. M., there is seen to be some ill-defined dilatation of the arch of the aorta, with disease of the parietes, but nothing that can be called a sac; upon the inner surface of the artery at this part there is a deep ulcer, four or five lines in diameter, and this had burst into the trachea just above its bifurcation; a red, fleshy little mass projecting into this last at the seat of perforation. The bronchi were full of coagulated blood, and there was also found pneumonia, pulmonary emphysema, old pericardial adhesions, and ascites.

Feb. 25.—*Laryngitis.*—Dr. Jackson showed the specimen, received from Dr. Geo. H. Gay. It was taken from a woman who was attacked very suddenly, and died in two days; she had aphonia, very urgent dyspnœa, and dysphagia so severe that she was almost convulsed on attempting to swallow. She had been attending upon her sister, who had erysipelas following the re-

moval of a cancerous breast. There is a yellow appearance of the cellular tissue, as if from an infiltration of pus, though scarcely any can be forced out, affecting the upper part of the larynx, and extending downwards about the œsophagus as far as where the parts were cut across, the throat only having been examined. The glottis is soft, and not excessively swollen; and upon one side is an appearance upon the surface as if a slough was about to form; the mucous membrane being otherwise unaffected. Dr. J. remarked upon the striking resemblance, in regard to the anatomical appearances, between this case and one reported by him a few months since (see last number of Journal); the same appearances he had also found, though to a much less extent, in the case of our lately deceased member, Dr. John D. Fisher. (See *Boston Med. and Surg. Journ.*, March 13.) He also remarked upon it as an interesting fact, in relation to any question as to the nature of the inflammation in the above case, that a third sister has been attacked with erysipelas since the death of the second, but is likely to recover.

Feb. 25.—*Paracentesis in Acute Pleurisy.*—Dr. HOMANS reported the case which he had recently seen in consultation with Dr. MORRILL WYMAN, of Cambridge. The patient was a healthy woman, and the operation was done on the twelfth day of the disease. There was great pain, and such urgent dyspnœa that she had been unable for some time to lie down in bed; with enlargement of the side and other physical signs of effusion. An exploring needle having been passed in by Dr. W., about an inch below the left scapula, ℥xviij of serum were drawn off, but no pus; and with such relief that the patient was able to sleep comfortably that night, in the horizontal position. Two or three days afterwards about half as much more was drawn off, and recovery soon followed.

Feb. 25.—*Fatty Liver.*—Dr. HOMANS reported the case, which occurred in a child between three and four years of age. When about nine months old, it began to grow quite fleshy, and continued so ever afterwards. Previously to this the liver had been felt to be enlarged, and at the time of death it occupied the whole cavity of the abdomen. The organ, which is shown, is of a very uniform, pale fawn colour, smooth upon the surface, and greasing the scalpel; ℥ss of oil was also shown, which was obtained from ℥iv of the mass. The child's health was sufficiently good, except that it was subject to attacks of spasmodic dyspnœa; and it died at last from pneumonia.

Some years ago, another and rather older child in the same family died with an immense liver, but the organ in that case was dark-coloured, quite hard, and apparently granulated. There is still a third child, now living and about six years old, with enlargement of the organ. The parents and two other children appear to be healthy.

A fractured femur was also shown, from the subject of the present case. The bone was broken in the early part of the summer, and again in November

at the same place, and each time the union appeared to be strong. The fracture is just below the trochanters, very oblique, and firmly united, though the bone is still somewhat vascular; appears somewhat as if it may have been only partially broken. Dr. J. M. WARREN, who attended the child in November, is confident that the fracture was then complete.

Feb. 25.—*Pleurisy followed by Pneumothorax and Gangrene.*—Dr. C. E. WARE reported the following case: A young man, thirty-three years of age, was taken January 30, 1850, with chills, cough, loss of appetite, and some dyspnœa. He kept about till February 2, when pain occurred in left side, greatly aggravated on full inspiration was first examined by Dr. Ware; Feb. 4th. He then had a pulse of 84. His tongue was thinly furred, and pasty. He had a sharp pain under the sixth rib, with considerable dyspnœa. There was less respiration in the left back and front than in the right. When up, dull on percussion behind. When lying down, greater resonance on percussion over cardiac region than on corresponding part of right side. There were no bronchial sounds nor râles. Very little cough, and only an occasional expectoration of thin transparent mucus, without stain.

6*th.* His pulse had reached 108. His expectoration was about an ounce in the course of twenty-four hours, consisting of tenacious mucus with a few blood stains.

On the 8th, he had become entirely flat on percussion at the base of the lung, both before and behind, and there was an entire absence of respiratory sound. His pulse was 112.

10*th.* His gums were little affected by blue pill, and there was some wandering during the night.

13*th.* Had a good night; pulse 100. Expectoration very small in quantity; transparent mucus with a few stains of fresh blood; no wandering. Puerile respiration and resonance on percussion in right back; perfectly flat, and no respiratory sound below the spine of scapula in left back, which is more full and rounded than right.

14*th.* At about twelve o'clock in the night, without any previous warning, or change in his symptoms, he was seized with a violent paroxysm of coughing, and began to expectorate pure pus, of which he raised in the course of two or three hours a pint. In it there were a few specks of blood. It was attended with great dyspnœa, obliging him to sit up. His countenance became quite sunken. His pulse rose to 124. No respiratory sound heard in left back; in front heard as low as third rib. Respiration clear, without râles; puerile on right side before and behind.

15*th.* Pulse 104. Expectoration of a pint of pure pus in the twenty-four hours, without fetor; cough frequent, easy, loose; mind clear.

16*th.* Had another attack of copious purulent expectoration—a pint in two hours; pulse 120; great dyspnœa; pus more liquid and fetid; coarse mucous râles under left clavicle.

18*th*. Pulse 112. Expectoration less in quantity, and thicker. Under both clavicles resonance on percussion greater than natural in the erect position; about equal on the two sides. He sleeps very well in the erect position.

23*d*. Pulse 108. Expectoration much diminished, of a less purulent character, more thick and tenacious; respiration pretty easy in a horizontal position, which he tried yesterday for the first time since he began to raise the pus; cough much less severe.

25*th*. Loud friction sound over the left front above cardiac region.

28*th*. Emaciation very great; expectoration small in quantity, very liquid, fetid pus; respiration more laboured; a strong expiration, with some râle over upper part of right front. Great resonance on percussion over whole *back* on both sides, in a reclining position. Under the left clavicle in front, a very clear respiratory *sound, so closely resembling a cavernous sound** as to make me doubt if it was not so, not being able to tell it by the voice.

March 1*st*. No purulent expectoration; only about an ounce in the twenty-four hours of adhesive mucus; pulse 101; general aspect better.

3*d*. Pulse 116; respiration more laboured; expectoration purulent, of a more unhealthy colour and character, and a decidedly gangrenous odour; over the nates there is a commencing slough.

7*th*. Pulse 100; tongue clean and moist; slough on back is thrown off; expectoration small in quantity, and mucous, except when he is disturbed, when he raises a thin, dirty, fetid pus, hawking and spitting it out with very little cough or effort.

8*th*. Through the day he gradually failed, and without the occurrence of any new symptoms, died early on the morning of the 8th.

The treatment was in the commencement, leeching, antimony and mercury; and after the occurrence of the pneumothorax, stimulants and tonics. The autopsy, owing to circumstances, was made in a hasty and rather unsatisfactory manner. The chest only was examined. In the left pleural cavity, there was by a hasty measurement about forty ounces of thin, fetid, dirty pus. The lower lobe of the left lung was entirely carnified by compression. The upper lobe in front and at apex was vesicular and healthy, distended by air to an almost emphysematous degree. Posteriorly, at about an inch and a half to two inches from apex, there was a ragged opening in the pleura, around which for an inch or more the lungs had a gangrenous appearance. No tubercles or traces of tubercles could be discovered in this lung. There were a few adhesions about the lower lobe and at the apex of the upper lobe.

In the right pleural cavity there was no effusion; a few adhesions. Towards the apex of the upper lobe of the right lung there was a group of tubercles. The lung healthy around them. There was quite extensive pneumonia of the middle and lower lobe; hepatization, but apparently recent in occurrence.

* From the post-mortem condition, this was evidently due to the healthy lung, floated up to this point by the fluid in the chest, and rendered almost emphysematous by compression.

This case was one of simple pleurisy with effusion in the outset, in a man who had never presented any signs of tubercles, and whose family were none of them phthisical. Until the fifteenth day from the attack, there was nothing peculiar in the course of the disease, and there was no reason to anticipate anything unfavourable. Then he was suddenly attacked, without the least warning, with violent cough, extreme dyspnœa, and most profuse expectoration of pus. The pus, as he raised it, was quite liquid, like that found in a close serous cavity, but became thicker on standing. On the 17th it had become quite fetid. From this time he continued on the whole rather improving to the twenty-ninth day from his attack, the amount of expectoration varying very much—sometimes scarce anything for twenty-four hours, and then suddenly very copious. When very small in quantity, it was simple transparent mucus. When there was any considerable amount, it was thin, fetid pus, similar to that found after death in the pleural cavity, showing distinctly its source by its character. From his general symptoms and from the physical signs, it is probable that on the twenty-ninth day the pneumonia on the right side began under which he sank and died. On that day was also first noticed the gangrenous odour in his expectoration. The occurrence of pneumothorax except by tubercle, is extremely rare. In the present case it probably occurred by tubercle, although none could be discovered, nor anything which indicated its previous existence. The gangrenous, ragged condition of the lung might easily have effaced or concealed any trace of it. The existence of tubercle on the other side adds to the probability of there having been tubercle on this also, when it is so difficult to explain the accident in any other way. The gangrene would not explain it, as that could hardly have occurred in much less than ten days or a fortnight after the communication with the pleura took place. There was no odour to indicate it, and the pus at the commencement was perfectly healthy in its character, contrary to what one would expect to find in contact with a surface undergoing the process of gangrene. The gangrene of the lung, the slough on the back, and the pneumonia on the right side, all began apparently at about the same time.

March 11.—*Vesicular Disease in a New-born Infant.*—Case reported by Dr. BETHUNE.—The disease appeared on the second or third day, and lasted about a week. Upon the upper extremities the vesicles were quite numerous, and about as large as the head of a pin; but upon the abdomen, where there were only a few, they were probably from four to six lines in diameter. There was little or no redness about them, and they at last dried up, causing meanwhile nothing more than a little fretfulness.

March 11.—*Painful Cutaneous Tubercle.*—Dr. J. M. WARREN reported the case of a female, thirty years of age, who had a small, projecting nipple-shaped tumour on the skin of the right nates. It was of five years' standing, and she complained greatly of the suffering, it being of the most insupport-

able kind, and occurring in paroxysms. At these periods she would not allow any person to come near her. Entire relief followed its removal. Its texture was fibrous, and no cancer cells could be detected in it under the microscope. The character of the pain was the same as that observed in the *subcutaneous painful* tubercle.

The wound was examined, after the excision of the tubercle, for the purpose of discovering if any nervous filament had been pressed upon by it, but none could be detected.

March 11.—*Tumour of the Orbit.* Dr. J. M. WARREN.—Dr. Warren first saw the patient two months since, in company with a distinguished physician of a neighbouring town. The history of the case is as follows:—

The patient is sixty-nine years of age, tall, and, with the exception of the present disease, healthy. Four years ago, after exposure to a current of cold air on his face while sitting at a lecture, he felt a soreness at the upper part of the orbit of left eye. Shortly after, a swelling appeared at this spot, and this, increasing, gradually filled up the socket, forcing the eye from its situation, so as to project it forwards and outwards, and prevent vision, except of objects on that side.

The surface of the tumour was irregular, and covered by enlarged veins. It was tense, elastic to the touch, and its appearance at first was that presented by encephaloid disease when making its way out from the interior of the cranium.

In the course of two months it had increased one-third. On a careful exploration of the tumour, an indistinct feeling of fluctuation was perceptible. There was, also, projecting from the upper part of the socket, a small shelf of bone which seemed to enter and be incorporated with its parietes. This led Dr. W. to the belief that it might be periosteal, and an exploratory operation was advised.

The patient being etherized with chloric ether, an incision was made through the skin and orbicular muscle of the eyelid. This at once disclosed a sac with an osseous deposit in its parietes, which, on being punctured, discharged about four ounces of fetid pus. The finger being now passed into the cavity, discovered, below, a bony sac, which as far as was practicable was dissected out and removed. On carrying the finger upwards, no resistance was encountered until it reached a distance of two inches above the margin of the orbit.

The pressure of the fluid had apparently caused an absorption of the lower wall of the frontal sinus, and forced upwards that portion upon which the anterior lobes of the brain repose. Two openings could be distinguished within the cavity, one leading into the right frontal sinus, the other communicating by a very minute opening with the nasal cavities: the interior was lined with a delicate membrane.

After being once emptied, the cavity became again filled with pus, coming, as was supposed, from the other sinus.

The patient bore the operation well, and, when seen some hours afterwards, was quite free from pain, and without any unpleasant symptom.

It was estimated that from six to eight ounces of pus escaped from the tumour in the course of the day. This patient was heard from on May 7th, nearly two months after the operation. His physician states that some days after the operation the discharge was "immense." Since this, it has gradually decreased. The eye has nearly regained its natural position, and he sees as well as ever. His health is unimpaired.

March 25.—*Chronic Ulcer of the Stomach.* Reported by Dr. W. T. PARKER.—An Irish tailor, aged twenty-one years, came to this country five years ago. Previously healthy, he had an attack of vomiting on his way to the emigrant ship. He remained in the harbour six days before sailing, without any return of it, but during a voyage of seventy days it occurred almost incessantly. He landed in Nova Scotia, where the vomiting continued, in spite of any medical treatment. For six months he vomited almost daily; and, during that time, was never free from that symptom for more than a fortnight. At first, there was nothing peculiar noticed in the character of the matters vomited; after some time it resembled in appearance coffee-grounds. The stomach was remarkably distended, having the appearance of a large tumour before the act of vomiting, which would occur very suddenly, the quantity discharged often amounting to from four to six quarts. During all this time his appearance was slightly anemic, his appetite and strength moderately good, his bowels sometimes costive; the swelling of the stomach giving him uneasiness rather than pain. At times able to attend to his trade; often interrupted in it by the exhaustion of vomiting.

Dr. P. saw him first fifteen months ago, and procured for him a free bed at the Massachusetts General Hospital. There he remained under treatment four weeks, and was discharged not relieved: the vomiting continuing as profuse and exhausting as ever. He came under Dr. P.'s treatment March, 1849, an aggravated condition of all the above symptoms then existing. Syr. ferri iodidi gtts. x, ter in die sumend. was prescribed.

The vomiting ceased immediately, and strength began to return.

He persevered in this treatment through the summer months, with such relief as to be able to work at his trade, and from the administration of the first dose of iron, had no return of vomiting at all, till late in December, when a slight attack occurred. This was again relieved by the same treatment. During the winter of 1849–50 he had two or three attacks of the same. * *

March 24*th*, 1850. Called to him again. Has had a violent return of vomiting, attended with unusual pain in the abdomen and swelling. He was partially relieved by the warm bath, but collapsed and died in twenty-five hours after his last attack.

On examination, found the abdomen distended by air, and containing nearly two gallons of fluid similar to that vomited. Stomach very greatly enlarged,

and coats very much thickened, especially towards the pylorus. In the lesser curvature, one inch from the pylorus, was discovered an ulcer four lines in diameter, which had entirely perforated the stomach, and near it a smaller one which had perforated the mucous coat. There were considerable adhesions between this part of the stomach and the gall-bladder. Further examination was prevented.

March 25.—*Poisoning by Nitric Acid.*—Dr. J. M. WARREN reported the case as follows: The patient was a negress, thirty-four years of age, of abandoned character, and took the acid at 6 P. M. on the 3d of March, thinking that she was three months pregnant, and wishing, she said, to destroy her child. The quantity taken into her mouth was reported to be ʒiij, but most of it was spit out. Alkalies and mucilaginous drinks were used, but the burning in the mouth was intense through the night, with restlessness and delirium. The next morning she was brought from the jail, where the acid was taken, to the hospital. Yellow stains were then observed upon the clothing, and the whole inside of the mouth and fauces, so far as could be seen, was of a deep yellow colour, the tongue looking as if covered with Indian meal; the respiration being painful, laboured, and stridulous, and speech almost impossible. Extremities cold, countenance of a leaden hue; pulse 120, and very small. For the first four or five days after her admission she suffered from soreness of the mouth and throat, dysphagia, thirst, and salivation, with some vomiting; she also complained of tenderness of the abdomen, but not particularly over the stomach, walking with difficulty and bent much forwards; but this was perhaps owing to her having been thrown down and stamped upon, in an affray, on the day on which she took the acid. After the first day or two she was much of the time up and about the ward; at the end of a week she was reported quite comfortable, and having some appetite; and on the 14th of March, as she was doing well, she was removed back to the jail, there never having been any fever, but rather a state of depression. On the morning of the 16th, she was attacked with cramps in the stomach, and excessive pain and tenderness, which were partially relieved by opiates; on the following morning, however, she was found dead in her cell, with a great quantity of blood in the bed about her, and which she had apparently vomited.

On dissection, there was observed great rigidity; upon the middle of the tongue a large, yellowish, smooth patch; some redness of epiglottis; œsophagus healthy for the first two inches; but below this it was found exceedingly soft, of a greenish yellow colour internally, purple externally, and full of coagulated blood. The stomach was in a similar, though much worse state; externally, it had the same purple colour, and was universally adherent to the neighbouring parts by recent lymph, except at the left extremity, where there were old and close adhesions to the spleen; internally, it was of a greenish yellow colour, emphysematous, and so perfectly softened and friable that it could not be separated from the surrounding parts without giving way in every

direction; the anterior face being detached from the rest of the organ to a great extent when the abdominal parietes were raised; cavity filled with recent, coagulated blood, and the open orifices of several vessels distinctly seen on inner surface. The intestine contained blood throughout the first two or three feet, but was otherwise well, as were the other organs, so far as observed; uterus not gravid.

March 25.—*Tumour within the Larynx.*—Dr. JACKSON exhibited the specimen, which he had received from Dr. AUGUSTUS MASON, of Billerica. The patient was a man about fifty years of age, very fleshy, and in robust health, except for the trouble in the throat. For twelve years or more there had been hoarseness, with wheezing, and for the last two or three years complete aphonia; there was also much dyspnœa on over-exertion, and, when asleep, a distressing noise as from impending suffocation. His death at last was rather sudden, and seemed owing to congestion of the lungs. The tumour is about seven lines in diameter, well defined, of a rounded form, rough on the surface like a syphilitic wart, fleshy in consistence, and having a somewhat fibro-cellular appearance on incision. Its situation is just below the ventricles of the larynx posteriorly, and it is attached upon each side broadly and to about an equal extent, the intermediate portion being free.

The following microscopic appearances were observed by Dr. W. J. BURNETT: "The primitive original basis of this formation supposed to be an epithelial structure. Pavement epithelial cells of various ages were everywhere plentifully present, being folded in by fibrous tissue; which, as an hypertrophy of that normally belonging to the part, is always liable to accompany the abnormal production of simple individual cell-structures, forming the material basis on which the latter rest."

March 25.—*Hydatid Degeneration of Ovum.*—Specimen exhibited, and the following report of the case made by Dr. PUTNAM.—The subject of this case is a young married woman. Her last child born three years ago. Menstruation since that time regular. Last menstruation occurred during last week in November. During the following three months, suffered from pain in the back, bearing down, and copious leucorrhœa. There was also an unusual degree of chilliness, which made warmer clothing necessary. The above symptoms were aggravated at the periods of expected menstruation. She was positive that she was not pregnant, because her sensations were different from those she had usually experienced during gestation.

On examination, at the end of the second month, the body of the uterus was decidedly enlarged. No special change in the neck. At the end of the third month the enlargement was found to have subsided. On the fifteenth of March—at the middle of the fourth month—hemorrhage occurred. At first very slight, but gradually increasing and attended with pain until the twenty-third, when the hydatids were discharged. Hemorrhage continued

more urgently until checked by the use of ergot, but did not entirely cease for three weeks.

The hydatid cluster would more than fill a half pint bowl—the separate vesicles being of various sizes, from a pin's head to half an inch in diameter. The usual term hydatid has been employed, but it is well known to be a vesicular disease of the ovum, resembling hydatids only in external form. In this case no fœtus was detected, but the deciduous membrane was perfectly distinct.

Dr. Burnett having examined some of these cysts microscopically, found the parietes to consist of a simple aggregation of minute granules, such as constitute the primary cell membranes, but neither fibrillæ, fibres nor vessels; the structure being quite different from that of cysts in general. The liquid contents he found to be hyaline, and, in the larger ones, the granules were suspended for precipitation upon the internal surface; the action of acids showed the presence of albumen.

April 8.—*Disease of the Radius after fracture.*—The case occurred in the practice of Dr. ADAMS, of Waltham, who sent the following history: The patient is a healthy married woman, and belongs to a healthy family. Eleven years ago she broke the right radius near the wrist, and in about four weeks union had so far taken place that the dressings were removed; when, about eight or ten days afterwards, she fell and broke the bone again in the same place, as she supposed; she did not, however, consult Dr. A., and there is much doubt as to the second fracture. Three months after the fall she asked his advice in regard to an osseous deposition that had appeared at the seat of injury; it was then about the size of a very large bean, and from that time continued to enlarge until amputation was performed on the 25th of March. During its whole course, the disease gave very little trouble, except from its size and the embarrassment to the motion of the limb; there never having been any pain nor tenderness until last November, since which time the pain has been gradually increasing until it became so intense as to demand an operation.

The whole bone begins to enlarge just above the commencement of the lower third, and gradually; but at last forms a tumour nearly as large as the two fists; the general form being pretty regular, though deep grooves are seen in its substance, along which run the flexor and extensor tendons. Having been sawed through longitudinally, it is seen to be a mere shell of bone, and not everywhere continuous; two or three laminæ projecting a little way into the cavity from its internal surface. This cavity is filled with a soft substance, which presents two very different characters: the first and probably the most recent has a somewhat fibrous, grayish, translucent appearance, and seems to be infiltrated with serum, with a trace of extravasated blood in one or two places. The larger part of the mass, however, is made up of a yellow, soft and perfectly opaque substance, like soft custard. This last is very marked

towards the outer edge of the tumour and just above the wrist-joint, where the bony parietes are destroyed, and the soft parts are shooting out. Dr. H. J. Bigelow showed a beautiful coloured drawing of the recent section; and described the microscopic appearances of the new formation, in which he found no positive evidence of cancerous disease. The ulna and bones of the hand appear to be healthy.

April 22.—*Carcinomatous Tumour weighing fourteen and a half pounds, occurring in a little girl only eleven years old.*—Dr. JACKSON had recently examined this case. The abdomen was immensely distended, and measured thirty-four inches in circumference. The tumour originated in the cavity of the pelvis; the uterus and rectum being intimately connected, though not buried in it; adhesion otherwise not extensive. It consisted of a solid, white, rounded mass, one or two lobes upon the surface being felt before the abdomen was opened. Internally, it presented well-marked encephaloid characters, the colour being generally white, but the consistence varying somewhat. A similar tumour, about the size of the fist, was found near the stomach, but none of the organs were affected excepting those of the pelvis; the ureters and pelvis, however, were distended, as they often are, by pressure from without. No fluid in peritoneum.

The patient had been under the care of Dr. W. Lewis, and the history of the case was obtained by Mr. S. G. Wolcott, one of his students. The child was of a lively disposition, and healthy until her fourth year, when, after an injury, she suffered from what was regarded as a scrofulous affection of the ankle-joint; but from this she recovered, and continued strong and robust until she was ten years old, when the disease returned; and though she afterwards improved, she was unable to bear fatigue. In February, 1849, she walked two or three miles out of town, complaining of fatigue, and, on her return, of great pain in the right iliac region. The abdomen was exceedingly distended; and projected, it was said, like a sugar-loaf. For a week she was confined to her bed; after which the swelling subsided, though a hard substance remained in the pelvic region about the size of a hen's egg; and this was the apparent beginning of the tumour, which afterwards constantly increased. Pain in the iliac region such that she would frequently awake in the night with loud screams; there was also some dysuria, much trouble in defecation, frequent vomiting and epistaxis, with night sweats; her appetite, however, was strong, and her constitution bore up well under the disease, so that though her whole appearance was delicate, she was able to keep about during the winter, being confined to her bed only for about four weeks before her death.

April 22.—*Friction Sound over the Liver in Ascites.*—Dr. JACKSON has such a case now in the Hospital. The abdomen has been much distended, but as the fluid of late has been absorbed so that the parietes have become

relaxed, the left lobe of the liver is distinctly felt for about two inches below the ensiform cartilage. If then the abdominal parietes are brought into contact with this organ, a very distinct though fine frottement is felt by the hand, and felt or heard by the ear through the stethoscope, as the two surfaces rub over each other in the movements of respiration or otherwise. The patient is an elderly man, and has no symptoms whatever of peritonitis; disease of the liver being suspected as a cause of the effusion, as it cannot be traced to the heart or kidneys, though there is no more positive evidence of the first organ being affected than of the two last.

Some years ago, Dr. J. met with this same physical sign in another case of ascites; and where it was even more marked than in the one just reported. On dissection, he examined the parts very carefully as soon as the abdomen was opened, but nothing unusual was found to explain the phenomenon; the liver was granulated, but there were no adhesions, nor any lymph to form any, upon the opposing surfaces; the situation of the frottement being the same in the two cases. Dr. J. referred to the observations of Dr. Bright in regard to a friction sound over the abdomen where adhesions are forming on the subsidence of peritoneal inflammation; observations, however, which he had never seen, and which he had never known to be confirmed here.

April 22.—*Encysted Tumour;* removed by Dr. S. D. Townsend, and exhibited to the Society by Dr. W. E. Townsend.—The patient is forty-five years of age, and is sure that the tumour had existed from the time he was a year old, if not from birth. It was situated over the middle of the sternum, loosely connected with the surrounding parts, without any discoloration of the surface or tenderness; was of a regular, ovoid form, about the size of a goose-egg, and had grown one-half within two years. The cavity was filled with a curdy, almost putty-like substance, of a dirty, brownish yellow colour, and formed into very uniform, rounded masses, about three or four lines in diameter, with some thick liquid, in which were many small, rather bright, scales. Under the microscope, this substance appears to consist principally of fat and epithelial scales. There are also a considerable number of loose hairs throughout the mass. The sac is lined by a well-marked cutis, but, to some extent, by what appears at first sight rather like a mucous membrane; this last being covered in part by cuticle. Hairs from two to three inches in length are also seen growing from the cutis; and, whenever seen, they are generally white, though some of them are nearly black.

April 22.—*Encysted Tumour.*—Dr. H. J. Bigelow had recently removed such a tumour from over the upper part of the left scapula. The patient is a woman forty-nine years of age, and had had the disease for more than thirty years; occasionally it inflamed and threatened to suppurate, but generally it was nothing more than a mechanical annoyance to her. Dr. B. showed the material removed from the cysts; about five or six ounces in quantity, and

resembling thick, coarse Indian-meal gruel; the greater part of it, in fact, consisting of opaque, yellow flakes, to the naked eye, and being made up of epithelial scales, as appeared under the microscope. He also showed a very beautiful coloured drawing of the parts as they appeared before the operation.

ART. IV.—*Annual Report of the Committee on Medical Chemistry.* By JNO. C. DALTON, Jr., M. D. (Read before the Boston Society for Medical Observation, June 4th, 1849.)

Urate of Ammonia.—The first subject to be noticed in this evening's report is the deposit of urate of ammonia from the urine. Though this deposit has been noticed by physicians from an early period, and is, perhaps, of more frequent occurrence in the urine than any other, yet its exact pathological signification is not by any means, as yet, fully determined. More extensive observations will be necessary to establish definitely the relations of this, as of some other urinary deposits; and it is rather for the purpose of directing the attention of the society to the matter than because we have collected a sufficient number of facts to settle any very important point, that the subject is brought forward at present.

It is stated by authors generally that the deposit of urate of ammonia indicates a febrile condition of the system; and there can be no doubt, from the evidence in our possession, that it is, in reality, one of the most common phenomena which accompany vascular excitement. Thus, Andral has reported thirty-three cases of pneumonia, in seventeen of which urate of ammonia occurred as a deposit, either constant or occasional. Simon, also, mentions its occurrence in pleurisy, bronchitis, and inflammatory diseases generally. Still, this does not show us on what particular circumstance its production depends—whether it is consequent on the disturbance of the circulation, of the nutrition, or of the digestive organs; or, in fine, whether it results, in common with these other symptoms, from the original cause of illness. It certainly does not invariably accompany inflammation; and, on the other hand, vascular excitement is not absolutely necessary to its production.

I have noticed the deposit of urate of ammonia in eleven different cases, in some of which the sediment was transitory, in some occasional, and in some constant. Two of these were cases of phthisis, three of cancer, one of bronchitis, one of scrofulous disease of the tarsal bones, two accidental injuries, one of typhoid fever, and one of sudden and extensive gangrene. Such a list as the foregoing, however, can lead to almost no definite conclusion with regard to the true cause of the symptom. It is evident that the principal disease for which the patients were under treatment may be very different